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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,867	03/10/2004	Po-Cheng Chen	250122-1350	2229
24504 7590 12/28/2007 THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 600 GALLERIA PARKWAY, S.E. STE 1500 ATLANTA, GA 30339-5994			EXAMINER LEWIS, MONICA	
			ART UNIT 2822	PAPER NUMBER
			MAIL DATE 12/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/797,867

Applicant(s)

CHEN ET AL.

Examiner

Monica Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) 14-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12, 13 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This office action is in response to the response filed October 28, 2007.

#### ***Response to Arguments***

2. Applicant's arguments with respect to claims 12, 13 and 22 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Drawings***

3. The drawings are objected to because of the following: a) the way figure 2 is drawn it is not clear what is on the rear and front substrate. In the prior office action, the Examiner had a typographical error which stated it was figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al. (U.S. Patent No. 6,806,645) in view of Koshio et al. (U.S. Patent No. 6,522,075).

In regards to claim 12, Choi et al. ("Choi") discloses the following:

a) a front substrate (10) having a bus electrode (12b) (For Example: See Figure 3);  
and

b) a rear substrate (18) having a second pattern comprising at least one hexagonal honeycomb pattern formed with rib barriers (24c) (For Example: See Figure 3).

In regards to claim 12, Choi fails to disclose the following:

a) a first pattern comprising one line segment isolated from the bus electrode and wherein the projection of the line segment is substantially parallel to at least one side of the hexagonal honeycomb pattern with a predetermined distance therebetween.

However, Koshio et al. ("Koshio") discloses a semiconductor device that has a first pattern comprising at least one line segment isolated from the bus electrode and wherein the projection of the line segment is substantially parallel to at least one side of the hexagonal honeycomb pattern with a predetermined distance therebetween (For Example: See Figure 17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Choi to include a first pattern comprising at least one line segment isolated from the bus electrode and wherein the projection of the line segment is substantially parallel to at least one side of the hexagonal honeycomb

pattern with a predetermined distance therebetween as disclosed in Koshio because it aids in improving fineness for a picture (For Example: See Column 2 Lines 35-60).

Additionally, since Yoon and Koshio are both from the same field of endeavor, the purpose disclosed by Koshio would have been recognized in the pertinent art of Yoon.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al. (U.S. Patent No. 6,806,645) in view of Koshio et al. (U.S. Patent No. 6,522,075) and Hirano (U.S. Patent No. 6,819,046).

In regards to claim 13, Choi fails to disclose the following:

a) the first pattern comprises a plurality of parallel line segments.

However, Hirano discloses a semiconductor device that has a first pattern comprises a plurality of parallel line segments (For Example: See Figure 17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Choi to include a first pattern comprises a plurality of parallel line segments as disclosed in Hirano because it aids in providing lower power consumption (For Example: See Column 5 Lines 50-59).

Additionally, since Choi and Hirano are both from the same field of endeavor, the purpose disclosed by Hirano would have been recognized in the pertinent art of Choi.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al. (U.S. Patent No. 6,806,645) in view of Koshio et al. (U.S. Patent No. 6,522,075) and Boo et al. (Korean Publication No. 2002019353).

In regards to claim 22, Choi fails to disclose the following:

a) the bus electrode comprises non-transparent bus electrode material or black matrix material.

However, Boo et al. ("Boo") discloses a semiconductor device that has non-transparent bus electrode material (13) or black matrix material (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Choi to include a first pattern installed on the front substrate that comprises a non-transparent bus electrode material or black matrix material as disclosed in Boo because it aids in providing a discharge sustain function (For Example: See Abstract).

Additionally, since Choi and Boo are both from the same field of endeavor, the purpose disclosed by Boo would have been recognized in the pertinent art of Choi.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al. (U.S. Patent No. 6,806,645) in view of Harada et al. (U.S. Publication No. 2003/0132709).

In regards to claim 12, Choi discloses the following:

a) a front substrate (10) having a bus electrode (12b) (For Example: See Figure 3);  
and

b) a rear substrate (18) having a second pattern comprising at least one hexagonal honeycomb pattern formed with rib barriers (24c) (For Example: See Figure 3).

In regards to claim 12, Choi fails to disclose the following:

a) a first pattern comprising one line segment isolated from the bus electrode and wherein the projection of the line segment is substantially parallel to at least one side of the hexagonal honeycomb pattern with a predetermined distance therebetween.

However, Harada et al. ("Harada") discloses a semiconductor device that has a first pattern comprising at least one line segment isolated from the bus electrode and wherein the projection of the line segment is substantially parallel to at least one side of the hexagonal honeycomb pattern with a predetermined distance therebetween (For Example: See Figure 14 and Figure 18). It would have been obvious to one having ordinary skill in the art

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at the time the invention was made to modify the semiconductor of Choi to include a first pattern comprising at least one line segment isolated from the bus electrode and wherein the projection of the line segment is substantially parallel to at least one side of the hexagonal honeycomb pattern with a predetermined distance therebetween as disclosed in Harada because it aids in preventing color split (For Example: See Paragraph 19).

Additionally, since Choi and Harada are both from the same field of endeavor, the purpose disclosed by Harada would have been recognized in the pertinent art of Choi.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al. (U.S. Patent No. 6,806,645) in view of Harada et al. (U.S. Publication No. 2003/0132709) and Hirano (U.S. Patent No. 6,819,046).

In regards to claim 13, Choi fails to disclose the following:

- a) the first pattern comprises a plurality of parallel line segments.

However, Hirano discloses a semiconductor device that has a first pattern comprises a plurality of parallel line segments (For Example: See Figure 17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Choi to include a first pattern comprises a plurality of parallel line segments as disclosed in Hirano because it aids in providing lower power consumption (For Example: See Column 5 Lines 50-59).

Additionally, since Choi and Hirano are both from the same field of endeavor, the purpose disclosed by Hirano would have been recognized in the pertinent art of Choi.

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10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al. (U.S. Patent No. 6,806,645) in view of Harada et al. (U.S. Publication No. 2003/0132709) and Boo et al. (Korean Publication No. 2002019353).

In regards to claim 22, Choi fails to disclose the following:

a) the bus electrode comprises non-transparent bus electrode material or black matrix material.

However, Boo discloses a semiconductor device that has non-transparent bus electrode material (13) or black matrix material (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Choi to include a first pattern installed on the front substrate that comprises a non-transparent bus electrode material or black matrix material as disclosed in Boo because it aids in providing a discharge sustain function (For Example: See Abstract).

Additionally, since Choi and Boo are both from the same field of endeavor, the purpose disclosed by Boo would have been recognized in the pertinent art of Choi.

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica Lewis whose telephone number is 571-272-1838. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on 571-272-2429. The fax phone number for the organization




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where this application or proceeding is assigned is 571-272-8300 for regular and after final communications.

ML

December 14, 2007



MONICA LEWIS  
PRIMARY PATENT EXAMINER